24 June 2020

The Planning Inspectorate
National Infrastructure Planning
Temple Quay House
2 The Square
Bristol
BS1 6PN

Dear Sirs

Re: McDonald's, Markeaton Park

Following from the Hearing of 9th June 2020 there was an online meeting on 16th June between the representatives of McDonald's and Euro Garages with Aecom/Derby City Council as highway authority and the matters discussed were:

1) Car park strengthening
2) A52 junction
3) Rights of way
4) Advance warning signage

This letter forms an update to our previous submission and includes two attached files, all saved into a single PDF.

Car Park Strengthening

Please find enclosed a conditions report undertaken by ST Consult, on behalf of our Client and drawing 4200226-1000 P2 (Proposed Finishes) by Glanville Consultants. The work shows that currently the areas of the car park used now, and potentially in the future are both in need of improvement.

The red area shown on drawing 4200226-1000 P2 shows the existing areas of delivery manoeuvres and therefore would fall under McDonald's own programme of maintenance and repairs to the store. The green area has until now, never been used for HGV access and therefore it is prudent to ensure the longevity of this through thorough improvements to reduce our Client's exposure to future maintenance and repair costs as a result of the changes in operation needed to accommodate HE's proposals.

Our Client will be seeking financial compensation for these works, so that their own contractor team with experience of working in and around an operational McDonald's restaurant can undertake the works on a programme designed to fit in around restaurant activity, in order to minimise interruption to the business.

Our Client looks forward to further discussions with HE's representatives to agree a way forward on this matter.
A52 junction

As noted in ADL’s previous correspondence and analysis, it is accepted that the capacity of the junction is acceptable, despite concerns about how accurately this can be modelled and the potential for erroneous results. The safety aspects of the substandard U turn into the wider site have been under discussion for some time and McDonald’s and their neighbours Euro Garages Ltd has sought confirmation that Derby City Council (DCiC) who will ultimately be responsible for the junction, consider that it is safe and suitable for use.

We note that DCiC noted in their Deadline 14 submission that:

“some changes are needed to improve safety and the operation of the proposed signals … … and that this can be dealt with at the detailed design stage.”

Both McDonald’s and Euro Garages have undertaken their own internal investigations to identify if changes within their sites could be made to improve the proposed junction layout and it was concluded that this would not be possible without significant changes to layout and circulation within the sites. To date no proposal from HE has come forward for our client to consider in terms of how the proposed arrangements could be improved upon, either utilising highway or (even) client controlled land for consideration. The difficulty identified by McDonald’s is that to ensure good operation of their site, drivers need to clearly be able to identify and make decisions in terms of entering the drive thru lane or parking; where they need to go after using the drive thru lane, whether they need to make a fuel purchase before or after a visit. Any ingress into the site to accommodate the development will reduce space for these customer decisions, and can also bring the rear of any vehicle queue at the proposed signals further into their site.

DCiC also noted:

“The access is not ideal in terms of general and the provision of pedestrians crossing it, however, the general layout is no worse than the existing situation.”

We would suggest that the current crescent shaped priority arrangements to the A52 offer considerably more space for drivers to execute their manoeuvres in and out of the site, by virtue of the separation between each end of the crescent arrangement.

In the quotation above, DCiC note that the general layout is “no worse” than the existing situation, however, we would contend that “no worse” is not adequate confirmation of the acceptability of the junction arrangements, given that using HE’s own data (Annex B, Technical Note: Markeaton Traffic Signals Operation, September 2019) the proposals would increase the amount of traffic turning into the site, from the A52 by 100 vehicles in the AM peak hour and 99 in the PM peak, if all traffic which currently enters from the A38 diverts around the to A52 at the north side of the site. We consider that approximately 100 additional vehicles per hour entering the access at peak times represents a considerable intensification of a junction which DCiC consider is “not ideal” and the most positive terms they can use to describe it are “no worse than the existing situation.”

It is noted that Aecom propose further discussion at the detailed design stage, however, any design changes are highly unlikely to alter McDonald’s concern in respect of the safety of the A52 access and the potential consequent adverse effect upon the ability to trade from this site.
Rights of way

In respect of the stopping up of the ingress from the A38 there may be some adjustment of rights needed between the parties but the rights of McDonald’s in this matter are fully reserved. Our client looks forward to receiving details from Aecom as to how this can be practically resolved to ensure the correct elements of land are in proper ownership to avoid any legal complications, in terms of rights of ownership, maintenance, etc.

Our client will be significantly inconvenienced if the proposals are to proceed, particularly as the closure of the A38 access would appear to be unavoidable at this stage, therefore, it is only reasonable that as part of the application and implementation process any highway or third party land which would (seemingly) end up within the McDonald's demise, should be offered to McDonald’s at no cost or complication to them.

Advance Warning signage

It is noted that it is the preliminary view of Highways England that technically the site does not strictly conform to the requirements for advance warning signs, although many signed service area sites are not fully compliant. It is also noted that Aecom support the provision of advance warning signs and will continue to seek clearance from HE on this matter. The timescale for a decision is likely to go beyond the DCO process. We understand that Euro Garages have been asked to provide some additional details concerning the site at Braintree, Essex where signage was permitted in a similar situation. We will be liaising with both our client and Euro Garages on this matter as any signage proposals to the wider site will need to be agreed by both occupiers.

Closing

In closing, you will note that there are still areas which are of concern to our Client and whilst some matters may well be possible to resolve to all parties satisfaction; such as signage, car park strengthening and rights of way, our Client remains highly concerned about the proposed access from the A52 and the lack of viable solution offered to date to address their concerns.

As a result, our client maintains their objection to the scheme and the Statement of Common Ground remains unsigned.

Yours sincerely
for **ADL TRAFFIC AND HIGHWAYS ENGINEERING LIMITED**

ROB GREEN
ASSOCIATE DIRECTOR

Enc: JN1409 Conditions Report
4200226-1000 Proposed Finishes
6th March 2020

Conlon Construction Limited
20 Great Northern Way
Netherfield
Nottingham
NG4 2HD

For the attention of Mr Patrick Conlon

Dear Patrick,

Re: CBR Investigation at McDonalds Derby, off Kingsway (A38), Derby, Derbyshire (nearest postcode - DE22 4AA)
National Grid Reference: SK 333 369 (433372e, 336943n)
Geology: Gunthorpe Member of the Sidmouth Mudstone Formation [Mercia Mudstone Group]

Introduction and Scope

Our authority for carrying out this work was given by Mr Patrick Conlon of Conlon Construction Limited on the 17th February 2020. Further to our attendance at the above site, on the 25th February 2020, please find herewith our Dynamic Cone Penetrometer CBR test results, site plan and comments.

Four locations were requested by the client, as per the plan attached. The tests were undertaken from below the tarmacadam surface, in material comprising sub-base overlying reworked sub-grades or Made Ground material.

A desk study, wider geotechnical or any contamination assessment was outside the requested scope of works.

As with any site there may be differences in soil conditions between exploratory hole positions

1 Dynamic Cone Penetrometer (DCP) CBR Test

The CBR value is the result of an empirical test on soil that can be used for road design purposes. In the field the definitive test requires the use of a reaction load, usually a four-wheel drive vehicle, excavating plant, a CBR jack, and load measuring equipment.

The dynamic cone CBR test employs light portable equipment and is used to provide a continuous record of the penetration resistance of each layer in the ground for a depth of a metre from the surface. The penetration resistance provides a measure from which CBR values may be calculated using formulae published by the Transport Research Laboratory.

In the test a 22 mm diameter 60° cone is driven into the ground to a depth of up to one metre by a 9 kg weight, freely falling over 600 mm. The number of blows is recorded for each successive 50mm penetration increment.

A plot of the cumulative number of blows versus depth penetrated is drawn. This plot usually takes the form of a series of straight lines, the slopes of which are measured and expressed as
penetration in mm per blow. Several authors have prepared relationships between the DCP readings and the CBR and it is the practice of this laboratory to adopt the lower of two values derived from formulae established by Kleyn & Van Heerden, and by the TRL.

\[
CBR = 10^{(2.632 - 1.28 \log_{10} \frac{D}{\text{mm/blow}})} \quad \text{(K&VH)}^1
\]

\[
CBR = 10^{(2.48 - 1.057 \log_{10} \frac{D}{\text{mm/blow}})} \quad \text{(TRL)}^2
\]

The test is an adaptation of the Perth Penetrometer Test developed for the granular soils in Perth West Australia in the 1960s, and in the UK by this laboratory since 1973. It is similar to the Victoria Country Roads Board Penetrometer, the Transvaal Road Department Penetrometer, and the TRL dynamic cone penetrometer. It has been used for the determination of CBR values, after calibration for the local soil, and for compaction comparisons. In UK conditions it has been found to give consistent results for granular soils. It has the advantage that, as it can be driven through bituminous surfacings, granular road base, sub base and hardcore, the strength and thickness of each layer can be estimated.

2 Results/Comments

The logs and probes appended appear to indicate 70-150mm of tarmacadam underlain by a roadstone (limestone) sub-grade, down to a maximum depth of 300-550mm from surface. The sub-grades (proven at CBR2 and CBR4) appear to be reworked, locally derived clays, with CBR’s of around 3%+. Prudent design should, however, consider more conservative CBR values (2%) given the deep, crudely engineered Made Ground materials encountered at CBR1 and CBR4.

Should you have any further queries, please do not hesitate to contact us.

Yours faithfully

Chris Beech BSc MSc FGS
For and on behalf of
Southern Testing Laboratories Limited
DDI: 01604 500027
Email: cbeech@stconsult.co.uk

Notes:

This report presents our probe results only. As with any site there may be differences in soil conditions between exploratory hole positions.

This report is not an engineering design and the figures and calculations contained in the report should be used by the Engineer, taking note that variations will apply, according to variations in design loading, in techniques used, and in site conditions. Our figures therefore should not supersede the Engineer’s design.

The site investigation was conducted and this report has been prepared for the sole internal use and reliance of Conlon Construction Limited and their appointed Engineers. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Southern Testing Laboratories Limited. If an unauthorised third party comes into possession of this report they rely on it at their peril and the authors owe them no duty of care and skill.

---

1 Kleyn & Van Heerden
2 TRL
Figure 1 - Site Location Plan
Figure 2 – Exploratory Hole Location Plan
Appendix A
### Samples and In-situ Testing

<table>
<thead>
<tr>
<th>Depth (m)</th>
<th>Type</th>
<th>Results</th>
<th>Level (m AOD)</th>
<th>Thickness (m)</th>
<th>Legend</th>
<th>Depth (m bgl)</th>
<th>Stratum Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.50</td>
<td>HP</td>
<td>UCS(kPa)=85</td>
<td></td>
<td>(0.12)</td>
<td></td>
<td>0.12</td>
<td>HARDSTANDING consisting of: Tarmacadam.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.23)</td>
<td></td>
<td>0.35</td>
<td>SUBBASE consisting of: medium dense becoming dense, whitish grey, slightly sandy GRAVEL. Gravels consist of subrounded to angular, medium to coarse roadstone.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.35)</td>
<td></td>
<td>0.70</td>
<td>MADE GROUND consisting of soft, dark blackish grey, very sandy, gravelly CLAY. Gravels consist of subrounded to subangular, fine to coarse, roadstone, brick, flint and angular-tabular, fine ceramic fragments.</td>
</tr>
</tbody>
</table>

**Pit Stability:**

- Stable.

**Water Strikes:**

- None reported.
<table>
<thead>
<tr>
<th>Depth (m)</th>
<th>Type</th>
<th>Results</th>
<th>Level (m AOD)</th>
<th>Thickness (m)</th>
<th>Legend</th>
<th>Depth (m bgl)</th>
<th>Stratum Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0.08)</td>
<td></td>
<td></td>
<td></td>
<td>0.08</td>
<td></td>
<td></td>
<td>HARDSTANDING consisting of: Tarmacadam.</td>
</tr>
<tr>
<td>(0.02)</td>
<td></td>
<td></td>
<td></td>
<td>0.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.25)</td>
<td></td>
<td></td>
<td></td>
<td>0.35</td>
<td></td>
<td></td>
<td>SUBBASE consisting of: dense, whitish grey, slightly sandy GRAVEL. Gravels consist of subrounded to angular, medium to coarse roadstone.</td>
</tr>
<tr>
<td>(0.15)</td>
<td></td>
<td></td>
<td></td>
<td>0.50</td>
<td></td>
<td></td>
<td>SUBBASE consisting of: dense, light greyish brown, slightly silty, slightly cobbly, gravelly fine to coarse SAND. Gravels consist of subrounded to angular, medium to coarse roadstone, red brick and road planings.</td>
</tr>
<tr>
<td>(0.10)</td>
<td></td>
<td></td>
<td></td>
<td>0.60</td>
<td></td>
<td></td>
<td>SUBBASE consisting of: dense, black, gravelly fine to coarse SAND. Gravels consist of angular, fine road planings.</td>
</tr>
</tbody>
</table>

Pit terminated at 0.60m.

**Pit Dimension (m)**
- **Width:**
- **Length:**
- **Depth:**

**Pit Stability:** Stable.

**Water Strikes:**
### Pages and In situ Testing

<table>
<thead>
<tr>
<th>Depth (m)</th>
<th>Type</th>
<th>Results</th>
<th>Level (m AOD)</th>
<th>Thickness (m)</th>
<th>Legend</th>
<th>Depth (m bgl)</th>
<th>Stratum Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0.07)</td>
<td></td>
<td></td>
<td></td>
<td>0.07</td>
<td></td>
<td></td>
<td><strong>HARDSTANDING</strong> consisting of: Tarmacadam.</td>
</tr>
<tr>
<td>(0.23)</td>
<td></td>
<td></td>
<td></td>
<td>0.30</td>
<td></td>
<td></td>
<td><strong>SUBBASE</strong> consisting of: medium dense becoming dense, whitish grey, slightly sandy GRAVEL. Gravels consist of subrounded to angular, medium to coarse roadstone.</td>
</tr>
<tr>
<td>(0.30)</td>
<td></td>
<td></td>
<td></td>
<td>0.60</td>
<td></td>
<td></td>
<td><strong>MADE GROUND</strong> consisting of: medium dense, dark grey, slightly clayey, slightly sandy GRAVEL. Gravels consist of subangular to angular, fine to coarse roadstone, red brick fragments. at 0.4m bgl occasional fine to medium gravel sized plastic fragments encountered. at 0.5m bgl groundwater encountered as a slow seepage.</td>
</tr>
</tbody>
</table>

### Remarks
1) National Grid Reference inferred from Ordnance Survey Mapping. 2) Elevation not stated. 3) CBR DCP Perth probe testing undertaken. 4) Groundwater encountered at 0.5m bgl as slow seepage. 5) Materials backfilled upon completion and tarmacadam reinstated.

### Pit Stability
- **Stable.**

### Water Strikes

---

**Project Name:** McDonalds, Derby

**Location:** Markeaton, Derby Derbyshire

**Client:** Conlon Construction Limited

---

**Start - End Date:** 25/02/2020

**Project ID:** JN1409

**Machine Type:** Hand Tools

**Co-ordinates:** E 433327 - N 336952

**Logger:** CJB

**Remarks:**

---

**Pit Dimension (m)**

- **Width:**
- **Length:**
- **Depth:**

**Pit Stability:** Stable.

**Water Strikes:**
### Samples and In-situ Testing

<table>
<thead>
<tr>
<th>Depth (m)</th>
<th>Type</th>
<th>Results</th>
<th>Level (m AOD)</th>
<th>Thickness (m)</th>
<th>Legend</th>
<th>Depth (m bgl)</th>
<th>Stratum Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.60</td>
<td>HP</td>
<td>UCS(kPa)=120</td>
<td></td>
<td></td>
<td>(0.15)</td>
<td>0.15</td>
<td>HARDSTANDING consisting of: Tarmacadam.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.40)</td>
<td>0.55</td>
<td>SUBBASE consisting of: medium dense becoming dense, light grey, slightly clayey, gravelly medium to coarse SAND. Gravels consist of subangular to angular, fine to medium roadstone.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.15)</td>
<td>0.70</td>
<td>SUBGRADE consisting of: firm, reddish grey, sandy, gravelly CLAY. Gravels consist of angular and angular-tabular, fine mudstone.</td>
</tr>
</tbody>
</table>

**Remarks:**
1) National Grid Reference inferred from Ordnance Survey Mapping. 2) Elevation not stated. 3) CBR DCP Perth probe testing undertaken. 4) Groundwater not encountered. 5) Materials backfilled upon completion and tarmacadam reinstated.

### Pit Dimension (m)

<table>
<thead>
<tr>
<th>Width:</th>
<th>Length:</th>
<th>Depth:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix B
Dynamic Cone Penetrometry (DCP) Test Results

Test No: CBR1

Chainage:
Start Layer:
Soil Condition:
Notes:

Tested By: CJB
Checked By: ADM
Test Date: 27-Feb-20

Perth Cone CBR Penetration vs Cumulative Blow Count

<table>
<thead>
<tr>
<th>Layer No</th>
<th>From (mm)</th>
<th>To (mm)</th>
<th>Depth (mm)</th>
<th>Blow Count</th>
<th>No. of Blows</th>
<th>DCP mm/blow</th>
<th>CBR %</th>
<th>Soil Type</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>150</td>
<td>350</td>
<td>200</td>
<td>45</td>
<td>35</td>
<td>5.7</td>
<td>46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>350</td>
<td>550</td>
<td>200</td>
<td>91</td>
<td>46</td>
<td>4.3</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>550</td>
<td>750</td>
<td>200</td>
<td>107</td>
<td>16</td>
<td>12.5</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>750</td>
<td>1000</td>
<td>250</td>
<td>117</td>
<td>10</td>
<td>25.0</td>
<td>7.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Client: Conlon Construction (Nottingham) Ltd
Job No: JN1409
Site: McDonalds, Markeaton Park, Derby
Date: Fig.
Dynamic Cone Penetrometer (DCP) Test Results

Test No: CBR2

Chainage: Tested By: CJB
Start Layer: Checked By: ADM
Soil Condition: Test Date: 27-Feb-20
Notes:

Evaluating CBR Values from DCP Test Results

<table>
<thead>
<tr>
<th>Layer No</th>
<th>From (mm)</th>
<th>To (mm)</th>
<th>Depth (mm)</th>
<th>Blow Count</th>
<th>No. of Blows</th>
<th>DCP mm/blow</th>
<th>CBR %</th>
<th>Soil Type</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
<td>250</td>
<td>150</td>
<td>73</td>
<td>73</td>
<td>2.1</td>
<td>141</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>250</td>
<td>450</td>
<td>200</td>
<td>109</td>
<td>36</td>
<td>5.6</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>450</td>
<td>550</td>
<td>100</td>
<td>119</td>
<td>10</td>
<td>10.0</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>550</td>
<td>1000</td>
<td>450</td>
<td>134</td>
<td>15</td>
<td>30.0</td>
<td>5.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Client: Conlon Construction (Nottingham) Ltd
Job No: JN1409
Site: McDonalds, Markeaton Park, Derby
Date: Fig.
Dynamic Cone Penetrometry (DCP) Test Results

Test No: CBR3

<table>
<thead>
<tr>
<th>Layer No</th>
<th>From (mm)</th>
<th>To (mm)</th>
<th>Depth (mm)</th>
<th>Blow Count</th>
<th>No. of Blows</th>
<th>DCP mm/blow</th>
<th>CBR %</th>
<th>Soil Type</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
<td>200</td>
<td>100</td>
<td>17</td>
<td>12</td>
<td>8.3</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>200</td>
<td>400</td>
<td>200</td>
<td>25</td>
<td>8</td>
<td>25.0</td>
<td>7.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>400</td>
<td>550</td>
<td>150</td>
<td>37</td>
<td>12</td>
<td>12.5</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>550</td>
<td>1000</td>
<td>450</td>
<td>46</td>
<td>9</td>
<td>50.0</td>
<td>2.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Client: Conlon Construction (Nottingham) Ltd
Job No: JN1409
Site: McDonalds, Markeaton Park, Derby
Date: Fig.
Dynamic Cone Penetrometer (DCP) Test Results

Test No: CBR4

Tested By: CJB
Checked By: ADM
Test Date: 27-Feb-20

Notes:
Evaluated CBR Values from DCP Test Results

<table>
<thead>
<tr>
<th>Layer No</th>
<th>From (mm)</th>
<th>To (mm)</th>
<th>Depth (mm)</th>
<th>Blow Count</th>
<th>No. of Blows</th>
<th>DCP mm/blow</th>
<th>CBR %</th>
<th>Soil Type</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>150</td>
<td>300</td>
<td>150</td>
<td>35</td>
<td>25</td>
<td>6.0</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>300</td>
<td>600</td>
<td>300</td>
<td>50</td>
<td>15</td>
<td>20.0</td>
<td>9.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>600</td>
<td>1000</td>
<td>400</td>
<td>58</td>
<td>8</td>
<td>50.0</td>
<td>2.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Client: Conlon Construction (Nottingham) Ltd
Job No: JN1409
Site: McDonalds, Markeaton Park, Derby
Date: Fig.